Document #
IN-2- 9

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International Specialists in the Environmental Sciences

DATE: June 23, 1980

TO: Rene Van Someren

FROM: Robert Wachsmuth

SUBJECT: Indiana/TDD# F5-8006-5
Indianapolis/Lane Landfill

On June 23, 1980, a meeting was held with Greg Vanderlaan, Environmental Emergency Section Chief of Region V EPA at 536 S. Clark St. The purpose of this meeting was to get background information on the Lane Landfill in Indianapolis, Indiana.

Under the Clean Water Act, Indianapolis got federal grants to build an advanced wastewater treatment plant at the Belmont treatment plant site where about a dozen sludge lagoons were located. Before site preparation the sludge in these lagoons needed to be removed. The disposal plan that was selected through the facility plan was that of land application of the sludge on agricultural lands in Boone County, Indiana for $11.79/yd.

Water Division issued a Finding of No Significant Impact (FNSI) on the Indianapolis land application program (in April, 1977). Sludge analysis data indicated high values for cadmium and PCBs. PCB concentrations averaged 20 ppm but were found as high as 60 ppm. It turned out that cadmium was the limiting constituent for land application. Sludge application rates were not to exceed one pound of cadmium per acre. This application rate resulted in initial soil concentration of less than 4 ppm PCB after plowing and disking.

From the FNSI, a Region V grant for $9.1 million was awarded to the City of Indianapolis for the sludge removal and land application operation. Shortly after the city's contractors began work, they discovered that they would be unable to remove large quantities of sludge because of its high solids content. The contractor claimed that the sludge was umpumpable and therefore would not be suitable for land application.

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At the time the sludge removal began (September 1977) the owner, Jack Lane of Lane Landfill located across from the Belmont site, approached the Indiana State Board of Health with a plan to improve his landfill. The plan ws to place the sludge from the Belmont site in the Lane Landfill to smother the underground fire (had been burning for years) and contour the general site. Mr. Lane told ISBH that the City's Contractor had large quantities of "clay-like" material suited for landfill use. He would be able to dispose of it for the $11.79/yd. The city's consultant (Reed, Quebe, Allison, Wilcox, and Assoc.) contacted the project director of the city because they were concerned that the ISBH Solid Waste Management Section was not told that the material being landfilled was sludge and not really a clay-type material. The city director told the ISBH Solid Waste Managment Section that it supported putting the sludge in the Lane Landfill. Region V EPA did not know of this action and neither did the Grant Management Section of the ISBH. The Solid Waste Managment Section of the ISBH seeked approval from GMS to landfill greater quantities of sludge in the Lane Landfill. The state then realized that the sludge they approved for landfill should have been part of the land application program previously approved by Region V. It was found out that as much as 80% of the lagoon sludge was being placed in the Lane Landfill. At this point (January 1979) sludge landfilling activities were halted. Region V Water Division found out at this time that the sludge had been landfilled.

To determine the environmental consequences of this landfill activity a leachate study was conducted by the city's counsulting engineers. Region V had the Surveillance and Analysis Division determine the technical accuracy of the leachate study, the Air and Hazardous Materials Division and Water Division's Water Supply Branch to determine an acceptable PCB leachate concentration, and the Enforcement Division to determine if there would be any enforcement actions to be carried out on this landfill.

The leachate test was conducted using proposed RCRA guidelines. The test was based on the amount of sludge in the sample and the maximum release (quantity of material) under saturated conditions. The raw data was submitted to the State Board of Health and EPA Region V to try to interpret the results. However, this data could not be interpreted so as to determine what the concentrations of PCBs 1260 and 1014 were in relation to the sludge sample. Also it was not known if these two PCB values should be added together to get the total PCB value or what? From this data it was shown that if you would look at those two

PCBs separately that they would exceed Public Drinking Water Standards only 8% of the time.

Mr. Vanderlaan also told the writer that there were groundwater monitoring wells on the landfill site. This groundwater data was used in unsuccessful legal action against Mr. Lane. Also this area is not in a flood plain, the landfill is bermed, and there is no direct runoff unless there would be a very heavy rain that would overflow the runoff collection area.

Background information and the raw data from the leachate study was obtained from Pete Olson of the Water Division Region V EPA, 230 S. Dearborn.

The next step of this TDD is to meet with state and local officials in Indiana. The writer recommends that he talk to David Lamm, Indiana State Board of Health, Solid Waste Management Division, to get more background information on this Lane Landfill site, and try to obtain the preliminary Leachate Study Report along with the strip charts and calculations. He also recommend that he speak to David B. Vornehm of Reid, Quebe, Allison, Wilcox and Associates, Inc. who is the city consulting engineer on this project and who also conducted the leachate study. The writer would like to have Mr. Vornehm explain what was done and if there was any conclusions made. Before going to Indiana the writer needs to try to evaluate the raw data of the leachate test obtained from the Water Division's files.

RW/df

cc: File
Joe Petrilli

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